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10/082,861	10/19/2001	Guillaume Brouard	PHFR 000112	4948

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EXAMINER

CHU, DAVID H

ART UNIT PAPER NUMBER

2628

DATE MAILED: 09/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/082,861

Applicant(s)

BROUARD ET AL.

Examiner

David H. Chu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-6 and 8-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-6 and 8-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Response to Amendment***

1. Acknowledgment is made of the amendment filed by the applicant on 06/21/2006, in which:

- Independent claims 1 and 5 were amended.
- Dependent claims 3-4, 6 and 8 were amended.
- Dependent claims 2 and 7 were canceled.
- Dependent claims 9 and 10 were amended to overcome the 35 U.S.C. 112 and 35 U.S.C. 101 rejections previously presented, and now are in independent form.
- New claims 11 and 12 were added.

2. Claims 1, 3-6 and 8-12 are currently pending in U.S. Application Serial No. 10/082,861 and an Office Action on the merits follows.

***Oath/Declaration***

3. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.
4. The oath or declaration is defective because:
5. The office has received the letter from applicant stating submission of the properly signed Oath or Declaration. However, there is no indication of the actual Oath or Declaration form with the proper signature. Submission of the properly signed Oath or Declaration is requested.

***Specification***

6. The objection to the specification is withdrawn.

***Claim Rejections - 35 USC § 112***

7. The 35 USC 112 rejection with respect to claim 9 of the previous office action is **withdrawn** in light of the applicant's amendment.

***Claim Rejections - 35 USC § 101***

8. The 35 USC 112 rejection with respect to claims 9 and 10 of the previous office action is **withdrawn** in light of the applicant's amendment.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**10. Claims 1 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Rajan PG PUB Document No. 2001/0000962.**

11. Note with respect to claim 1, Rajan teaches:

A method of composing a scene content from digital video data streams containing video objects, said method comprising:

A decoding step for generating decoded object frames from said digital video data streams, and; [0051]

A rendering step for composing intermediate-composed frames in a composition buffer (FIG.1, 126...136 & [0060]) from said decoded object frames, characterized in that said method also comprises; [0077] [0079]

A scaling step applied to said intermediate-composed frames for generating output frames constituting scene content. [0077]

12. Note with respect to claim 5, Rajan teaches:

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13. A device for composing a scene content from digital video data streams containing video objects, said device comprising:

14. Decoding means (Content Decoders, [0051]) for providing decoded object frames from said digital video data streams, and;

15. Rendering means (Presentation Engine, [0077] [0079]) for composing intermediate-composed frames in a composition buffer from said decoded object frames, characterized in that said device also comprises;

16. Scaling means (Presentation Engine, [0077]) applied to said intermediate-composed frames for generating output frames constituting scene content.

***Claim Rejections - 35 USC § 103***

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. **Claims 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rajan as applied to claim 1 above, and further in view of Ezer et al. U.S. Patent No. 6,275,239, and applicant's admitted prior art.**

19. Note with respect to claim 6, Rajan does not explicitly teach:

20. A method of composing a scene content as claimed in claim 1, characterized in that it comprises:

21. A partitioning step for identifying non-extensive data manipulation steps,

22. A partitioning step for identifying extensive data manipulation steps,

23. Said method being designed to be executed by means of a signal processor and a signal co-processor which perform synchronized and parallel processing steps for creating simultaneously current and future output frames from said intermediate-composed frames, the signal processor being dedicated to said non-extensive data manipulation steps, and the signal co-processor being dedicated to said extensive data manipulation steps.

24. However, Ezer et al. teaches the use of a media coprocessor 102 that contain multiple processors for performing 3D graphics, video and audio functions in addition to a CPU 101, best shown in FIG. 1 (col. 3, line 27 - col. 4, line 35).

25. Further, the applicant admits that the processing means of a signal processor (SP) and signal co-processor (SCP) are well known by those skilled in the art for performing non-extensive data manipulation tasks and extensive data manipulation tasks respectively (Specification, pg5, line15-18).

26. To partition the two steps is inherent for a device/method that contains multiple processors carrying out different processes.

27. Therefore, it would have been obvious to one of an ordinary skill in the art to apply the media coprocessor teachings of Ezer et al. to the teachings admitted in prior art by the applicant to carry out multiple tasks, because this will allow efficient and faster processing of multiple tasks simultaneously.

28. Note with respect to claim 10, Rajan does not expressly teach:

29. A computer program product for a device for composing a scene content from decoded object frames, comprising a set of instructions which, when loaded into said device for composing, causes said device for composing to carry out the method as claimed in claim 1.

30. However, Rajan teaches a present invention that relates to a method and apparatus for composing and presenting multimedia video programs using the MPEG-4 standard [0040].



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31. Further, Rajan teaches a general architecture for a multimedia receiver terminal [0041].

32. It is well known in the art for a receiver terminal to have a processor to carry out the relevant tasks; wherein a set of instructions (computer program) supervises said processor.

33. Therefore, it would have been obvious to one of an ordinary skill in the art to apply a computer program to the multimedia receiver terminal teachings of Rajan, because it would be impractical to carry out the complex task recited by the applicant without a processor and a computer program that instructs it.

**34. Claims 3-4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rajan, further in view of Ezer et al., and admitted prior art as applied to claims 2 and 6 above, and further in view of Foley ("Computer Graphics: Principles and Practice").**

35. Note with respect to claim 3, Rajan teaches, as described above with respect to claims 1 and 5, the steps of decoding, rendering and scaling to be concurrent [0071].

36. However, Rajan does not expressly teach:

37. A method of composing a scene content as claimed in claim 2, characterized in that the scaling step of a current intermediate-composed frame is designed to be performed by the signal co-processor while the decoding step which generates decoded object frames used for the composition of the future intermediate-composed frame is being performed simultaneously by the signal processor.

38. Foley teaches that it is well known in the art to apply a Pipeline system wherein **multiple processors process in parallel** to speed computations through concurrency. Further, Foley teaches that the stages of a Pipeline can be assigned to separate hardware units (pg877, ch18.5).

39. The combination of the teachings of having concurrent steps of decoding, rendering and scaling by Rajan, and the pipeline teachings of Foley, result in the establishment of having separate processors in a Pipeline system carrying out the different tasks of "scaling" and "decoding" as recited by the applicant.

40. Therefore, at the time of the invention, it would have been obvious to one of an ordinary skill in the art to apply the Pipeline system and **processing in parallel** teachings of Foley to the concurrent steps of Rajan, because this will result in faster computation of processes.

Therefore, at the time of the invention, it would have been obvious to one of an ordinary skill in the art to apply the "concurrent processing teaching of Foley" to the independent processing of Rajan, because this will result in faster computation of processes (Foley, Ch 18.5, line 2-4).

41. Note with respect to claims 4 and 8, Rajan teaches the use of a decoding buffer 133 (FIG. 1). For the decoding step being "limited to decoding a maximum number of object frames used for composition" is inherent, as the size of the buffer is the determining factor that sets the number of maximum frames.

**42. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kalluri et al. U.S. Patent No. 6,934,660, and further in view of Rajan.**

43. Note with respect to claim 9, Kalluri et al. teaches:

44. A set top box designed for composing a scene content from digital video data streams encoded according to the MPEG-4 standard and carrying out a method as claimed in claim 1. (col. 2, line 54-67 & col. 5, line 32-37).

45. However, Kalluri et al does not expressly teach:

46. A set top box designed for composing a scene content from digital video data streams encoded according to the MPEG-4 standard and carrying out a method as claimed in claim 1.

47. Rajan teaches the method of carrying out the steps in claim 1 as described above.

48. Therefore, it would have been obvious to one of an ordinary skill in the art to apply the teachings of Rajan discussed above with respect to claim 1, to the set top box teachings of Kalluri, because this allow the set top box to more efficiently decode, render and scale objects.

***Response to Arguments***

**49. Applicant's arguments filed 6/21/2006 have been fully considered but they are not persuasive.**

50. Note with respect to claims 1, 4-6 and 8-10,

51. The applicant argues:

- Reference Rajan teaches scaling final frames constituting a scene, in contrast to scaling intermediate-composed frames.

52. However, scaling the rendered data for display on a display device is the equivalent to scaling intermediate-composed frames, wherein the **rendered data** is the **intermediate-composed frames** and the **finalized output frame** (result of scaling) is the **output frame** as recited by applicant.

53. Further, the applicant does not disclose **not enlarging all of the objects of the final scene even if only one of the objects is required to be enlarged** in the claims.

54. Note with respect to claim 3,

55. The applicant argues:

- Reference Rajan and Ezer fails to teach, simultaneously executing the decoding and scaling steps.

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56. However, paragraph [0071] of Rajan teaches the two processes done by the presentation engine 150 and composition engine 120 being **independent of one another**. The processes being independent of one of another further indicates the processes be carried out **simultaneously**.

57. Note further, reference Foley (applied to the previous rejection with respect to claims 3-4 and 7-8) teaches **concurrent/parallel** processing to speed computations (Foley, CH 18.5).

58. Therefore, at the time of the invention, it would have been obvious to one of an ordinary skill in the art to apply the “concurrent processing teaching of Foley” to the independent processing of Rajan, because this will result in faster computation of processes (Foley, Ch 18.5, line 2-4).

### Conclusion

59. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

60. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David H. Chu whose telephone number is (571) 272-8079. The examiner can normally be reached on M-F 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark K. Zimmerman can be reached on (571) 272-7653. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DHC

  
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